STRUCTURE NO. 00708

PONUS RIDGE ROAD
over
ROUTE 15
NEW CANAAN

Supplemental / Special Inspection

17

11/25/2011

Inspected by Other - 17 for Area 6

TEAM:	Forwarded to TE3	Ron Jantzen	Date	12/28/2011
TE3:	Reviewed by TE3	Ron Jantzen	Date	12/28/2011
	BMM Require	ed	No	1
	Town Bridge		No	
	Rating <= 5 (Items 58,59,60 or 62)	Yes	
	Rating Chang	ge 2 or More Values	No	
Fo	orwarded to Supervisor	Sandra Dumas	Date	12/28/2011
Fo	orwarded to "To Be Cop	ied Drawer"	Date	
	Date BR	I-19 Entered	12/28/2011	
SUPERVISO	Reviewed by S	upervisor SDU	Mes	1/22/12
SUPPORT:	Date Copies Made	2/15 12 BMM N	o tous	
	Scanned By:	Date Scanned	2/18/12 F	PDF Box No

NBI: Yes

 Structure No.
 00708
 Town
 New Canaan

 Inspection Date
 11/25/2011
 Inspectors
 R Jantzen

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Loose Forms (not	bound in report)	Number of Sheets Enclosed
Maintenance Me Flagging Memos PONTIS Elemen Plan Sheets		
Bound Report Pag	es	
Title Cover Shee Table of Content Executive Summ Field Notes Calculations: Photo Sheets Photo Images	S	1 1 8 8 18 36
<u>Forms</u>		
BRI-19 Highway	spection Report Form Bridge Inventory Form Bridge Under Entry Form	12 2

Comments:

Photos are in set of 30 (15 pages) and a set of 6 (3 pages) from a follow-up day. Field notes include 6 pages of sketches and 2 pages on estimated ADT.

KED EFYC		2008
91) Frequency Class: 24 01 Access Flagman ©	1.1ft No	, p
inspection Team Peck Survey 1/1/1/1900 ITICAL FEATURE INSPI	29) Year Built 1937	101 Verical and weight restrictions to mail 2011 (lest amestimated ADT of neg) Rot refer 11/16/11 And for 2011 RDT 12/19
90) Inspect Indepth Ins 2/3/200 Fracture: Uwater: Special:	27) Year Built 1937 42) Type of Service: A) On 1 Highway 28) Number of Lanes: A) On 2 29) Average Daily Traffic 2280 109) Percent Truck 30) Year of ADT 19) Bypass, Detour Length 50) Curb or Sidewalk Widths: A) Left 1.1ft 61) 51) Brg Rdwy width, curb-curb 52) Deck Width, Out-Out 32) Approach Roadway Width 33) Bridge Median Deck Area 47) Log Inv. Rte. Total Horiz. Cir.: 53) Min Vert Clearance Over Bridge 54) Min Vert Under Clearance on Right H 56) Min Lat Under Clearance on Left 56) Min Lat Under Clearance on Left 77) Project No. 0135-0270; Proposed Resurf/S Route 15 is possible at all entrance cannes	How 29 + How 30 - Est. ADT for 2011 from 29 + How 30 - Est. ADT for 2011 from 49 + 52 verified in fire lo
RANSPOR RANSPOR & EVALUA EVALLA M BRI-19 OF 41	27) Year Built 1937 42) Type of Service: A) On 1 Highw 28) Number of Lanes: A) On 2 29) Average Daily Traffic 109) Percent Truck 30) Year of ADT 19) Bypass, Detour Length 50) Curb or Sidewalk Widths 51) Brig Rdwy width, curb-cut 52) Deck Width, Out-Out 32) Approach Roadway Wid 33) Bridge Median De 34) Skew Angle 35) Structure Flared 10) Inv. Rte. Min. Vert Clearance 47) RLog Inv. Rte. Total Horiz 47) RLog Inv. Rte. Total Horiz 47) RLog Inv. Rte. Total Horiz 55) Min Vert Under Clearance 55) Min Lat Under Clearance 55) Min Lat Under Clearance 56) Min Lat Under Clearance 57) Roject No. 0135-0270: Prog	appearance. (JCK) from 29 + 1862 from 199 + 52
STATE OF CO DEPARTMENT OF T BRIDGE SAFETY STRUCTURE SHEET 1 OF 2 FOR B SHEET 1 OF 2 FOR B	ffx 0 NA min	
2D5 12/23/2011	Town Code 50580 [] Town Code 50580 [] Ity Street	Not Applicable
75.80 Data Entry By:	N CANAAN 1	
Bridge Number Relation Properties By: Received By: Received By: S&E Received Copies Made	Sridge Name Town Name NEW CANAAN Inventory Route: A) Record Type B) Signing Prefix C) Level of Service No.33 Miles () Facture Intersected A1 State Code C) Border Bridge: A) State Code C) Border Town Name A) State Code C) Border Sridge Structure No S) Number of Spans, Main Unit A) Material 1 Concrete A) Material 0 Other 5) Number of Approach Spans O7) Deck Structure Type A) Waering Surface/Protective (8) Wearing Surface (98) Wearing Surface B) Type of Membrane	C) Type of Deck Protection

	CLASSIFICATION	
112) NBIS Bridge Length	Ves	SIRUCIURE EVALUATION Bridge Number 00708 NBIS Length
104) Highway System	0 Off System	SHEET 2 OF 2 FORM BRI-19 REV 10/00 Town Name NEW CANAAN Yes 65
26) Functional Class	10	PONIS BINGE PO
100) Defense Highway	0 Route is not a STRAHNET Route	5000 Girton
101) Parallel Structure	N No parallel structure exists	readine Crossed
102) Direction of Traffic	2 2-way traffic	Inspected By: R. L. 12
103) Temporary Structure		
110) Designated National Network	0 Not on national network	LOAD RATIN
20) Toll	3 On Free Road	4 Evaluation Code
21) Maintain	1 State Highway Agency	Type 1
22) Owner	1 State Highway Agency	149.7 70) Bridge Posting 5
Report Class	S STATE	Type
37) Historical Significance		66) Inventory Rating 89.8
	WATERWAY	CONDITION ———— APPRAISALS
DrainageBasinCode		Rating By
38) Navigation Control		
39) Navigation Vert Cir	40 Novigotion House	re 5 4 // 68) Deck Geometry 4 //
16) Vert-lift Bra Nav Min	+o) Navigation Holls Cif.	60) Substructure 7 69) Under Clear Vert & Horiz 2
111) Pier Abutment Protection		
		62) Culverts N N (2) Approach Rdwy Alignment 6
SAN Tymo of More December 1977	TROPOSED IMPROVEMENTS	113) Sour Critical
3A) Type of work Proposed		
(5B) Work Done By		Items 58 Thru 72 Checked By:
(6) Length of Struct. Improvement	H.	ft 36) Traffic Safety Features:
94) Bridge Improvement Cost	9	
35) Roadway Improvement Cost	\$	
96) Total Project Cost	\$	
37) Year of Improvement Cost Est.) c
14) Future ADT	115) Voor Entire ADT	C) Approach Guardrail End 0
Project No.	0135-0270 Advantised 418,0043	OTHER FEATURES
	DSIGNS & LITH ITIES	Fence Required Yes
ther Doctor Program		No.
		Stand Tipes
ornel Fosted Signs 2	Blank	o.o. It cat warks
Actual P.L. Single Unit Truck	tons Actual P.L. 4Axle Truck tons	
Rec. P.L. Single Unit Truck	tons Rec. P.L. 4Axle Truck tons	Fence Material Loose Concrete Checked? Yes
Actual P.L. Semi-TrailerTruck	tons Actual P.L. 3S2 Truck tons	Fence Top Type
Rec. P.L. Semi-TrailerTruck		INSPECTION COMMENTS
Rec. P.L. All Vehicles	es	Proposed Next Indenth Insp Vear
osted Vert Clearance On Bridge		
osted Vert UnderClearance	Li E	
Posted Speed Limit	25 mph	7
Jtility		REVIEWED BY: A Jantzen Date 12/28/2011
		Sum

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH
00700	VEW CANAAN	True 65
ACILITY CÁRRIED	FEATURE CROSSED	
ONUS RIDGE ROAD	ROUTE 15	

INSPECTED BY A Jan 126m

UNDER STRUCTURE EVALUATION INVENTORY ROUTE

DIVISION OF BRIDGE SAFETY EVALUATION DEPARTMENT OF TRANSPORTATION

STATE OF CONNECTICUT

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(INSP. REPORT)

SHEET 3 OF 41

DATE

REVIEWED BY:

26) INV. RTE. FUNCT CLASSIFICATION 100) DEFENSE HIGHWAY DESIGNATION 110) DEFENSE HIGHWAY SYSTEM OF INV. ROUTE 110) DESIGNATED NATIONAL NETWORK 110) DESIGNATED NATION	+ POSTED VERT. CLR UNDER BRIDGE ON OF ON OF POSTED SIGNS COMMENTS: Chevray Chevray Recovery Recovery	
Route 15 is posted at all entrence ramps for vertical and weight restrictions to maintain "Parkway" 2 3 State Highway 1 Mainline 00015	seliles 5	1.8 ft
DESCRIPTION: Rofarian 5) INVENTORY ROUTE: A) RECORD TYPE B) ROUTE SIGNING PREFIX C) DESIGNATED LEVEL OF SERVICE D) ROUTE NO. 11) MILE POINT (INV.RTE) 12.	# 28B) NUMBER OF INV.ROUTE LANES # 4 * 29) ADT (INV. RTE) 66000 * 109) TRUCK ADT % (INV.RTE) 1	+ 56) MIN LAT UNDERCLR ON LEFT

FILL OUT ON EVERY INSPECTION 29, 109, 30, 41

⁻ VERIFY EVERY INSPECTION 28B, 10, 47, 53, 55, 56 & POSTED VERT CLEARANCE UNDER THE BRIDGE

^{**} MUST BE FILLED OUT OR VERIFIED ON THE FIRST INSPECTION MADE BASED ON THE NEW FHWA GUIDE 102

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 00708			Insped	ction Date: 11/25/	2011
Inspection Type:	Routine	Previous Inspection Date:	7/12/2010	Snooper Required:	No
Inspection Performed By:	Others	Feature Carried:	PONUS RIDGE ROAD	Snooper Used:	No
Town:	NEW CANAAN	Feature Intersected	: ROUTE 15	Year Built:	1937
Location:	1.0 MI S OF ROUTE 106	Main Design:	Frame (except fram culverts)	Year Rebuilt:	_
Main Material:	Concrete	j			
Visits Visit Date: Tem	np: Start Time:	End Time:	Inspectors:	Task:	
11/25/2011 60	11:55:00 AM		R. Jantzen	Senior Engineer	
11/30/2011 46	10:45:00 AM		T. Gartizott	Comor Engineer	
12/23/2011 45	10:05:00 AN		= -		
12/20/2011	10.00.00 AII	12.10.00 FW			
DECK: OVERLAY:	Inspection was lir elements were no Rating	nental inspection done to mited to ground access of inspected in detail.	and binoculars. Minor	Overall Rating:	d
		concrete frame. Structure "Additional Notes" below) Calculated depth of bitum and engineer comments i Bituminous overlay shows locations, typically 6 FT to There are several longitud up to 25 FT long and 1/8 NE corner of the span. The longitudinal crack alo between the abutments.	inous overlay is 6 IN to 6 in "Additional Notes". Is transverse and longitude 10 FT in length and haid linal and transverse crack IN to 3/16 IN open. Thes	tment joints. (See 6-1/4 IN. See curb reveal linal cracks at random rline to 1/16 IN open. eks and one random crac e cracks are primarily at	k the

5/41

	I	II
		A 3 FT wide band of medium raveling runs full length of the curb on both east and west sides.
		The overall number and density of cracks is high enough at the north end of the span as to create a large interconnected pattern of cracking.
		A 12 IN diameter bituminous patch is located in the northbound travel lane between the south abutment and mid-span.
		Along both curbs there is grass growth, heavy at random locations, and a heavy build up of leaves.
DECK-STR.		Per CT. BRIDGE INSPECTION MANUAL: When approach paving is carried
CONDITION:		across the top of the deck there is no deck and overall rating will be "N".
CURBS:	5	Concrete curbs / rail bases-
		Both curbs show minor hairline cracks and light scale through-out. Many hairline cracks on the inside vertical face extend across the top of curb and down the outside face but do not penetrate into the frame fascias or wing walls.
		Both curbs show cracks on the inside face that extend across the curb and connect with significant cracks in the frame fascias and wing walls. Widths for these significant cracks on the inside curb face vary, from 0.013 IN up to 1/32 IN at the NE (near A-2) for the east curb, and from 0.20 IN up to 1/8 IN at the NW (near A-2) for the west curb.
	,	East curb has several areas of severe scale up to 6 IN high x 5 IN deep (total 19 LF).
		West curb has an isolated area of severe scale near the south abutment (4 LF x 1 IN deep).
	16	Curb reveal at east curb is 6 IN typical. Curb reveal at west curb is typically 5-1/2 IN to 6 IN.
MEDIAN:	N	-
SIDEWALKS:		
PARAPET:		
RAILING:		
RAILING:	6	Concrete balustrade type-
	_	Railing generally shows minor hairline to slightly open cracks at random locations and extensive areas of light scale.
	21	There is a severe scale area at the northeast near A-2 @ 4 FT. long x 6 IN high x 2 IN deep.
		Heavy vine overgrowth is occurring at all four wing walls. The vine overgrowth extends 5FT to 10 FT out towards midspan at the NE and NW corners, and extends out 35 FT toward midspan at the southeast.
PAINT:	N	-
FENCE:	Ν	-
DRAINS:		-
LIGHTING		-
STANDARD:		
UTILITIES	N	-

6/41

TYPE/SIZE: CONSTR JOINTS:	The longitudinal construction joint is discussed as part of the frame intrados in the "Superstructure" section below.
EXPANSION JOINTS:	There are deck end joints in the concrete curbs / railbases at A-1 and A-2, but there are no formal joints in the bituminous overlay. The transverse joints between the concrete pavement slabs have been paved over at both of those locations. There are full width transverse cracks in the bituminous overlay at both A-1 and A-2 that coincide with the deck end joints in the curbs. The transverse cracks are up to 1 IN open at A-1 (south abutment) and up to 1/2 IN open at A-2 (north abutment). There is grass growing in the transverse crack at A-1, SE corner.

59.

This is a supplemental inspection done to verify overall ratings. SUPERSTRUCTURE: Inspection was limited to ground access and binoculars. Minor elements were not inspected in detail.

Rating

Rating

	Rating	
BEARING DEVICES:	Ν	-
STRINGERS:	4	Concrete Rigid Frame, Frame Slab Fascias- The concrete frame is solid. There is no fill or ballast, and therefore, there are no spandrel walls to hold the fill.
		Frame fascias exhibit vertical / diagonal cracking with heavy efflorescence in the negative moment tension zones at all four corners (2 cracks @ NW, 2 @ SW, 2 @ SE and 1 @ NE). These cracks are structural in nature and extend into and across the curbs / railbases. See engineer's notes in "Additional Comments".
		East fascia at the north end exhibits 39 SF of severe scale (overall dimensions 12 FT long x 4-1/2 FT high x 3 IN to 8 IN deep). The scale area shows heavy active leakage and heavy efflorescence with stalactite candles. Significant efflorescence is building up on the roadway below.
		East fascia at the south end exhibits 19.5 SF of severe scale (overall dimensions 10-1/2 FT long x 3-1/2 FT high x 3 IN to 4-1/2 IN deep). The scale area shows active leakage and heavy efflorescence with stalactite candles. Some efflorescence is building up on the roadway below.
		West fascia at the mid-span over Rte 15 NB left lane exhibits 5.5 SF of severe scale (overall dimensions 5 FT long x 2 FT high x 3 IN deep).
		Frame fascias at NE, SE and SW corners and at west fascia mid-span also exhibit scattered horizontal and diagonal hairline cracks and areas of map hairline cracking adjacent to structural cracks and areas of severe scale.
		The east fascia shows heavy vine overgrowth for 35 LF from south leg to midspan.
GIRDERS:	1	Concrete Rigid Frame, Frame Slab-
OINDENO.	4	Frame slab extrados is not visible due to pavement slabs and bituminous overlay. Ratings based on condition of frame slab intrados / soffit.
	×	Frame slab has a full length longitudinal construction joint at the bridge centerline. The joint is in the slab only and does not extend into the frame legs. This construction joint is not indicated in the original plans. ***The longitudinal joint exhibits light to moderate leakage stains and efflorescence for 16 LF near the south leg (A-1).
		***The longitudinal joint exhibits heavy leakage stains and heavy efflorescence with stalactite candles for 16 LF near the north leg (A-2).
		***The longitudinal joint exhibits leakage stains and 43 SF of spalling with exposed rebar for 30 LF in the mid-span area. Spalls range from 1 FT long x 1/2 FT wide and 1 rebar exposed up to 11 FT long x 1-1/2 FT wide and 4 rebar exposed. Rebar generally shows heavy laminar rust and significant section loss but due to limited access no details are available.
		***In some spalls along the joint, the rebar were painted with a protective coating in the past, but the coating is now flaking off in places and rust

bleeding through in other locations. In addition, the spalls have now extended beyond the painted area and have exposed extensive new areas of rusted The frame slab soffit shows 2 isolated spalls: 1 x 1 SF located over Rte 15 NB right lane near the east fascia, and 1 x 1 SF located over Rte 15 SB left lane near the west fascia. The frame slab soffit shows large areas in the mid-span area up to 12 FT long x 18 FT wide of map cracking with dampness and / or efflorescence along the cracks and general stains and discoloration. In some locations there are stalactite candles. The frame slab soffit shows large areas in the mid-span area up to 8 FT long x 9 FT wide of map cracking with dampness but w/o efflorescence along the cracks as well as general stains and discoloration. The frame slab soffit shows one area along the longitudinal joint up to 18 FT long x 2-1/2 FT wide of braided longitudinal cracking with dampness and / or efflorescence along the cracks and general stains and discoloration. In some locations there are stalactite candles. There is an isolated point source of efflorescence and active leakage near the south leg. Total area of spalls is 45 SF. Total area of map cracks with efflorescence and / or dampness is 773 SF. Total deterioration on the frame slab soffit is 818 SF or 31% of total deck area. The frame slab soffit also shows large areas near the south and north legs up to 16 FT long x 16-1/2 FT wide of stains, discoloration and latent (i.e. potential future) map cracks. Total area of discoloration and latent cracks is 824 SF or 31% of overall deck area. FLOOR BEAMS: 4 Concrete Rigid Frame, Frame Legs / Stems-The frame legs show scattered vertical and horizontal hairline cracking, some with light efflorescence, and extensive areas of light scale. South frame leg (at Abutment-1) exhibits a full height vertical crack 10 FT high x 0.20 IN open with active leakage and heavy efflorescence. Crack extends from top of brush wall to the center line construction joint of frame slab. North leg shows a full height vertical crack 10.6 FT high x 1/8 IN open with very heavy active leakage and heavy efflorescence. Crack extends from top of brush wall to the center line construction joint of frame slab. North leg shows two areas of severe scale along the open vertical crack: **One area @ 12 IN high x 7 IN x 2 IN deep at the top of crack adjacent to the frame slab **Other area @ 9 FT high x 7 IN wide x 6 IN deep adjacent to the top of the brush wall. North frame leg in the larger area of severe scale has a vertical rebar exposed 4 FT high with heavy laminar rust and section loss. The exposed rebar shows 38% section loss with 11/16 IN diameter remaining of original 7/8 IN diameter. North frame leg, east end face shows a horizontal hairline crack 18 IN long located 2 FT below the springline. TRUSSES- N GENERAL: TRUSSES- N PORTALS:

9/41

TRUSSES- BRACING:		-
PAINT:	Ν	
RUST:	Ν	-
MACHINERY MOV SPAN:		-
RIVETS & BOLTS:	Ν	-
WELDS - CRACKS:	Ν	-
TIMBER DECAY:	N	-
CONCRETE CRACKING:	4	See comments under "Stringers", "Girders" and "Floorbeams" above.
COLLISION DAMAGE:	7	Area of scrapes 6 FT long x 12 FT wide is located over the northbound right travel lane (SE corner).
MEMBER ALIGNMENT:	8	-
DEFLECT. UNDER LOAD:	Ν	Normal.
VIBRATION UNDER LOAD:	Ν	Normal.
STAND PIPES:	Ν	-
BARREL LADDERS:	N	- "
		ARE BARREL LADDERS OSHA COMPLIANT? -
60. SUBSTRUCTURE:	Inspection was lin	nental inspection done to verify overall ratings. nited to ground access and binoculars. Minor of inspected in detail. Overall Rating:
	Inspection was lin	nental inspection done to verify overall ratings. nited to ground access and binoculars. Minor
	Inspection was lin elements were no Rating	nental inspection done to verify overall ratings. nited to ground access and binoculars. Minor
SUBSTRUCTURE: ABUTMENTS- STEM: ABUTMENTS-	Inspection was lin elements were no Rating	Dental inspection done to verify overall ratings. Inited to ground access and binoculars. Minor ot inspected in detail. Concrete rigid frames have no abutments as such. The frame legs take distributed moments from live loads and are considered part of the
SUBSTRUCTURE: ABUTMENTS- STEM:	Inspection was lin elements were no Rating	cental inspection done to verify overall ratings. mited to ground access and binoculars. Minor ot inspected in detail. Concrete rigid frames have no abutments as such. The frame legs take distributed moments from live loads and are considered part of the superstructure. See comments under "Floorbeams" above.
SUBSTRUCTURE: ABUTMENTS- STEM: ABUTMENTS-	Inspection was lin elements were no Rating	cental inspection done to verify overall ratings. Inited to ground access and binoculars. Minor on inspected in detail. Concrete rigid frames have no abutments as such. The frame legs take distributed moments from live loads and are considered part of the superstructure. See comments under "Floorbeams" above. No backwalls. Concrete jersey shaped brush walls-
SUBSTRUCTURE: ABUTMENTS- STEM: ABUTMENTS-	Inspection was lin elements were no Rating	Concrete rigid frames have no abutments as such. The frame legs take distributed moments from live loads and are considered part of the superstructure. See comments under "Floorbeams" above. Concrete jersey shaped brush walls- The brush walls are not part of original construction and are non-structural. The south brush wall (at base of south leg) has 9 full height vertical hairline
SUBSTRUCTURE: ABUTMENTS- STEM: ABUTMENTS-	Inspection was linelements were not relements. Rating N	Concrete rigid frames have no abutments as such. The frame legs take distributed moments from live loads and are considered part of the superstructure. See comments under "Floorbeams" above. No backwalls. Concrete jersey shaped brush walls- The brush walls are not part of original construction and are non-structural. The south brush wall (at base of south leg) has 9 full height vertical hairline cracks and 1 partial height hairline crack. Some cracks exhibit efflorescence. The south brush wall has a small corner spall 4 IN long x 4 IN wide x 3 IN

	Ĺ	II I
ABUTMENTS- FOOTINGS:		Not visible.
ABUTMENTS- SETTLEMENT:		No indications of settlement noted.
ABUTMENTS-		Concrete wing walls and corner pylons-
WINGWALLS:		All wing walls and pylons show areas of light scale.
		All wing walls show heavy vine overgrowth limiting observation. In addition, access to wing walls is limited by heavy growth of brambles, briars and brush.
		NW wing wall exhibits a vertical crack, full height x 1/32 IN open, with heavy efflorescence. The crack extends into and across the curb / railbase. There is also an adjacent horizontal hairline crack with efflorescence on the outside face of the railbase.
		The NW pylon shows 2 vertical hairline cracks x 12 lN high at the base (one with efflorescence), and 2 horizontal hairline cracks x 24 lN long in lower half of the pylon.
		The NW pylon has 1 horizontal hairline crack x 18 IN long with heavy efflorescence and a large adjacent spall 4 IN long x 10 IN high x 1 IN deep located in lower half of the pylon.
	-	The NW pylon also has a horizontal construction defect 18 IN long in lower half of the pylon. The defect is not a crack.
		The SW wing wall has a full height vertical / diagonal hairline crack. The crack extends into and across the curb / railbase.
		The SW wing has a vertical crack, full height x 1/16 IN open, with efflorescence and a large adjacent spall 7 IN long x 12 IN high x 2 IN deep. The crack extends into and across the curb / railbase.
	7	The SW wing shows a spall with exposed rebar, 3 IN long x 6 IN high x 3/4 IN deep. The rebar was painted with a protective coating in the past but the coating has failed and the rebar is heavily rusted.
		The SE wing wall has 1 vertical hairline crack x 30 IN high and 1 vertical hairline crack x 8 FT high.
		The NE wing wall shows has 1 vertical hairline crack x 6 FT high and 1 nearby vertical hairline crack x 12 IN high.
		The NE wing wall has a large spall, 9 IN long x 12 IN high x 2 IN deep, with active leakage and heavy efflorescence.
PIERS/BENTS- CAPS:	Ν	-
PIERS/BENTS-PILE BENT:	Ν	-
PIERS/BENTS- COLUMNS:	N	-
PIERS/BENTS- FOOTING:	N	-
PIERS/BENTS- SETTLMT:	N	-
EROSION-SCOUR:		

11/41

	Ν		
CONCRETE CRACK-SPALL:		See above comments.	
STEEL CORROSION:		-	
PAINT:		1-	
TIMBER DECAY:	N	-	
COLLISION	8	-	
DAMAGE: DEBRIS:	N	1.	
	IN .		
61. CHANNEL & CHANNEL PROTECTION:	-		Overall Rating:
62. CULVERTS & RETAINING WALL:	-		Overall Rating:
CONDITION	Inspection was lin	nental inspection done to verify overall ratings. mited to ground access and binoculars. Minor ot inspected in detail.	Overall Rating:
APPROACH SLAB:	5	Concrete approach slab- Approach slab is paved over. The approach slab is conspace between the wing wall curbs and railings. The same configuration as the concrete pavement over the wide travel lane slabs and 2 x 5 FT wide shoulder slat condition of the bituminous overlay. South approach slab- ***South approach slab overlay shows several longituling x 1/4 IN open. These cracks roughly coincide with concrete pavement slabs at 5 FT from the curbs. ***Overlay also shows several short (3 FT to 5 FT long open 1/16 IN to 1/4 IN that intersect the longitudinal constant in the SW corner (near A-1) the approach overlay exapproximately 15 FT long x 1/2 IN open. ***Near the south end of the wing wall railings there is crack up to 1 IN open. ***At the south end of the SW wing wall railing there is crack up to 1 IN open.	slab appears to have e bridge w/ 2 x 10 FT bs. Ratings are based on dinal cracks up to 15 FT h the joints between the g) transverse cracks racks. exhibits a random crack a full width transverse

12/4/

		FT long x 1 IN open. ***A 3 FT wide band of medium raveling runs full length of the curb on both east and west sides North approach slab- ***North approach slab overlay shows several longitudinal cracks up to 30 FT long x 1/4 IN open. Most of these cracks coincide with the joints between the concrete pavement slabs at 5 FT from the curbs.
		***There are several short transverse cracks open 1/16 In to 1/8 IN across the roadway centerline.
		***There is a single transverse crack near the north end of the NE wing railing that is 5 Ft long x 1/4 IN wide.
		***A 3 FT wide band of medium raveling runs full length of the curb on both east and west sides.
RELIEF JOINTS:	Ν	-
APPROACH GUIDE RAIL:	3	Single wood post only at both NE and NW ends of railings. SE end has multiple wood posts drilled for 2-WRR but only one cable is present. Cable detached from the post closest to the bridge and is completely slack. Several posts are missing. SW end has multiple wood posts drilled for 2-WRR but no cable is present.
APPROACH PAVEMENT:	6	The bituminous pavement for the approach beyond the wing wall railings shows transverse and longitudinal cracks at random locations up to 1/4 IN open at both north and south approaches.
APPROACH EMBANKMENT:	8	Embankments are well vegetated and stable.

TRAFFIC SAFETY FEATURES

Rating

BRIDGE RAILINGS:		Concrete balustrade railings are un-modified and do not meet current standards.
TRANSITIONS:	0	Approach guide rail is not attached to the bridge. Also curbs project out, presenting a blunt end to traffic.
APPROACH GUARDRAILS:		The 2-WRR guiderail with wood posts does not meet current standards.
APPR. GUARDRAIL ENDS:		Insufficient flare at ends.

66. I	LO	Α	D
POS	IT	Ν	G

	- Posted Loading -	
SINGLE UNIT (TONS):	Last Inspection: - Current: -	-
SEMI TRAILER (TONS):	Last Inspection: - Current: -	
4 AXLE (TONS):	Last Inspection: - Current: -	-, :
3S2 (TONS):	Last Inspection: - Current: -	-
ADVANCE WARNING (Y/N):	-	-
LEGIBILITY:	-	-
VISIBILITY/LOCATION:	-	

67. MISCELLANEOUS

Rating

MIN. VERT. UNDERCLEARANCE:	Last Inspection: 12' 8" Current: -' -"	Min.Vert. Clr. Southbound 12ft 8in. Not verified at the 2011 supplemental inspection.
POSTED CLR. UNDER BRIDGE:	Last Inspection: -' -" Current: -' -"	-
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	-
ADVANCED WARNING (YES/NO):	No	-
SPEED LIMIT (IF ANY):	Last Inspection: 25 Current: -	-
CHARACTER OF TRAFIC:		Moderate volume, mostly automobiles and a few trucks.

ADD	ITI	10	NA	L
	N	TC	ES	3:

Engineer Notes:

The concrete pavement slabs on the bridge consist of two 10 FT wide slabs, one on either side of the centerline (travel lane pavement slabs), and two 5 FT wide slabs, one along each curb (shoulder pavement slabs).

14/41

The pavement slabs vary in thickness from 6-5/8 IN at the curb line to 7-1/2 IN at the centerline. The original curb reveal for bare concrete pavement slabs was 12 IN.

The vertical / diagonal cracks noted in the frame slab fascias at the corners are typical for the concrete rigid frames constructed along the Merritt Parkway in the 1930's. Although the plans indicate that the very heavy reinforcing steel (#7 to #9 rebar) was intended to extend across the full width of the structure, investigations at other bridges have found that smaller #4 to #5 rebar were substituted under the curbs and railings. The smaller rebar are unable to resist the stresses applied and cracking results. Although structural in nature, these cracks do not indicate a problem with the load capacity of the structure unless the cracks extend into the area of heavy reinforcement. This would be indicated on this structure by the fascia cracks propagating down to the soffit and connecting with transverse cracks that extend more than 2 FT from the soffit edge.

ADDITIONAL COMMENTS:

Merritt Parkway (Rte 15) is logged south to north. The highway crosses under the structure SW to NE.

Ponus Ridge Road is the structure inventory route and is logged south to north.

Bridge was inspected south to north with south frame leg (Frame stem #1) / south abutment (A-1) lies along Rte 15 northbound and the west fascia is closest to New York state (i.e. in direction of Rte 15 SB). This is in agreement with plans and the previous inspections.

Verified in field during 2011 inspection overall structure length and out-to-out measurements. From paving notch-to-paving notch (measured at joints in curbs since roadway joints paved over) the overall length is 73.7 FT which is in accordance with plans (coded Item 49 as 74 FT). The out-to-out measurement was confirmed as 35.5 FT which is slightly wider than the plans.

Inspectors' Signatures:	1)	Yould D. Jantyn f	Date: 12/28/201/
	2)		Date:/
	3)		Date:/
	4)		Date:/
P.E. Signature:			Date:/
P.E. #:			Date:/

** BRI18 FORM ** - Structure No: 00708 Inspection Date: 11/25/2011

Page 12 of 12

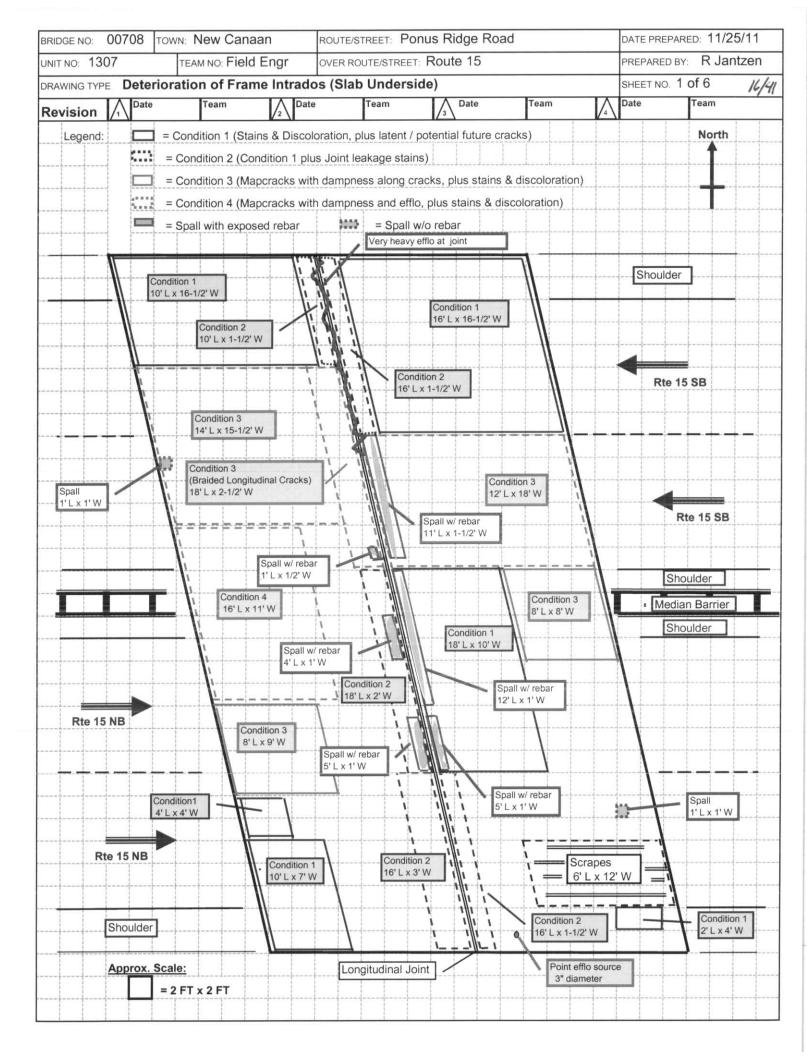
15/41

Reviewed by:

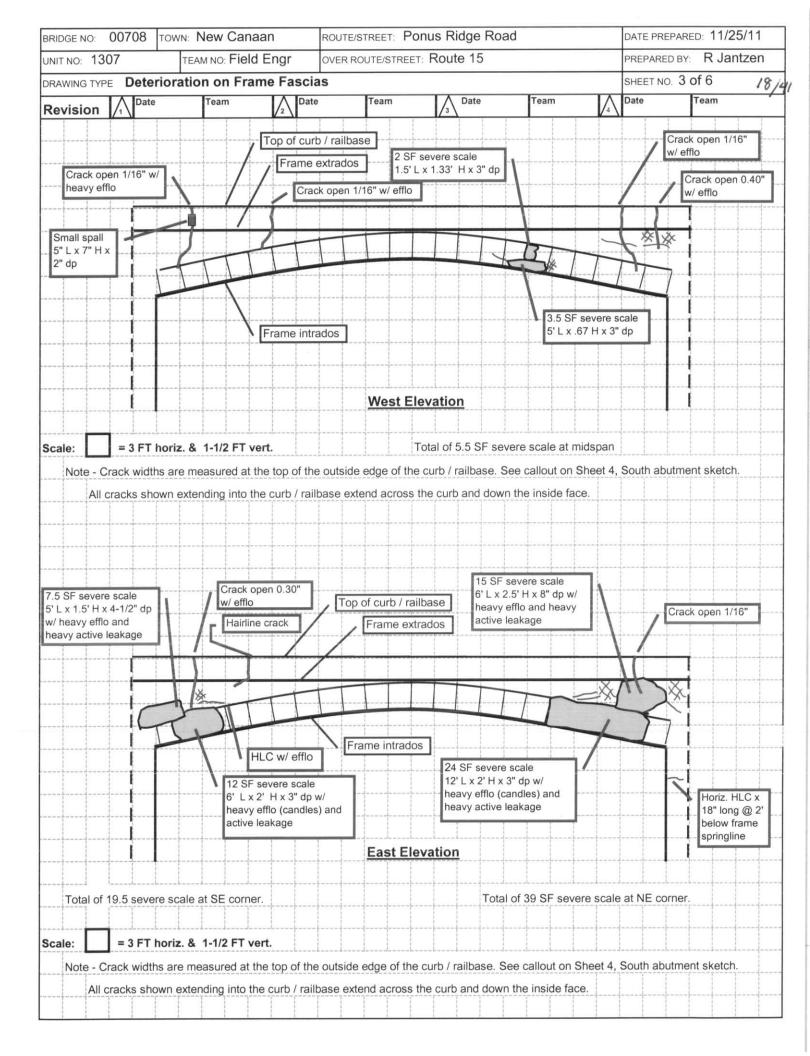
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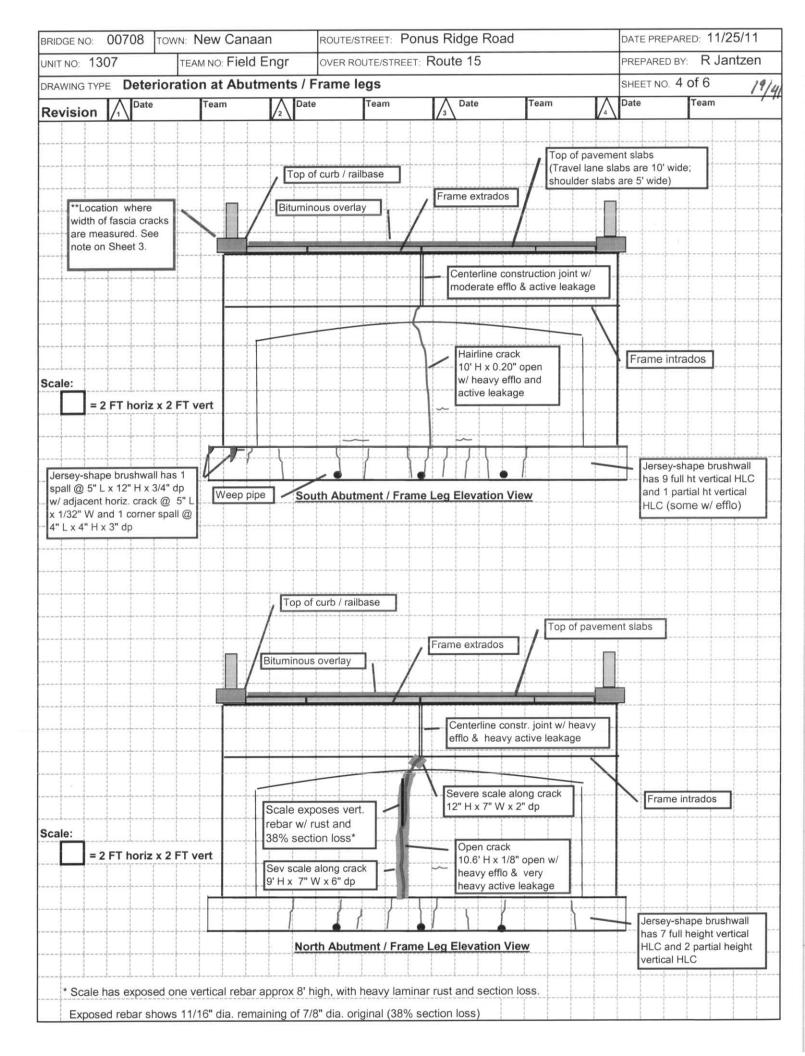
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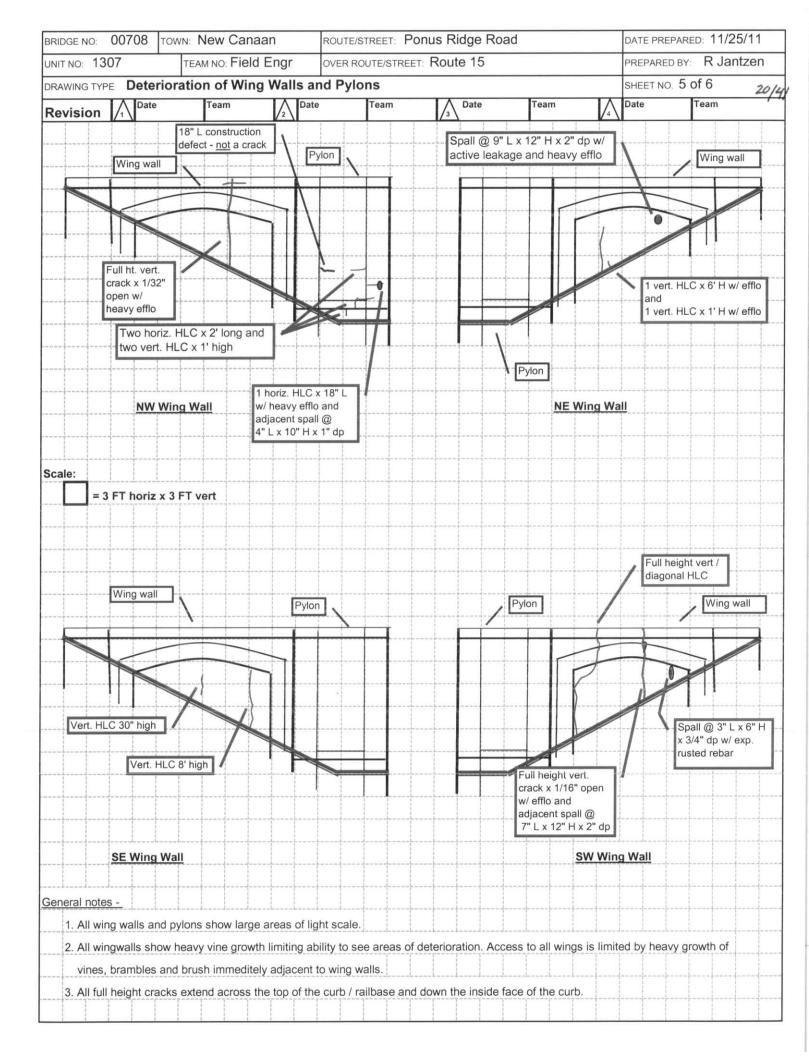
Date: 12/28/2011

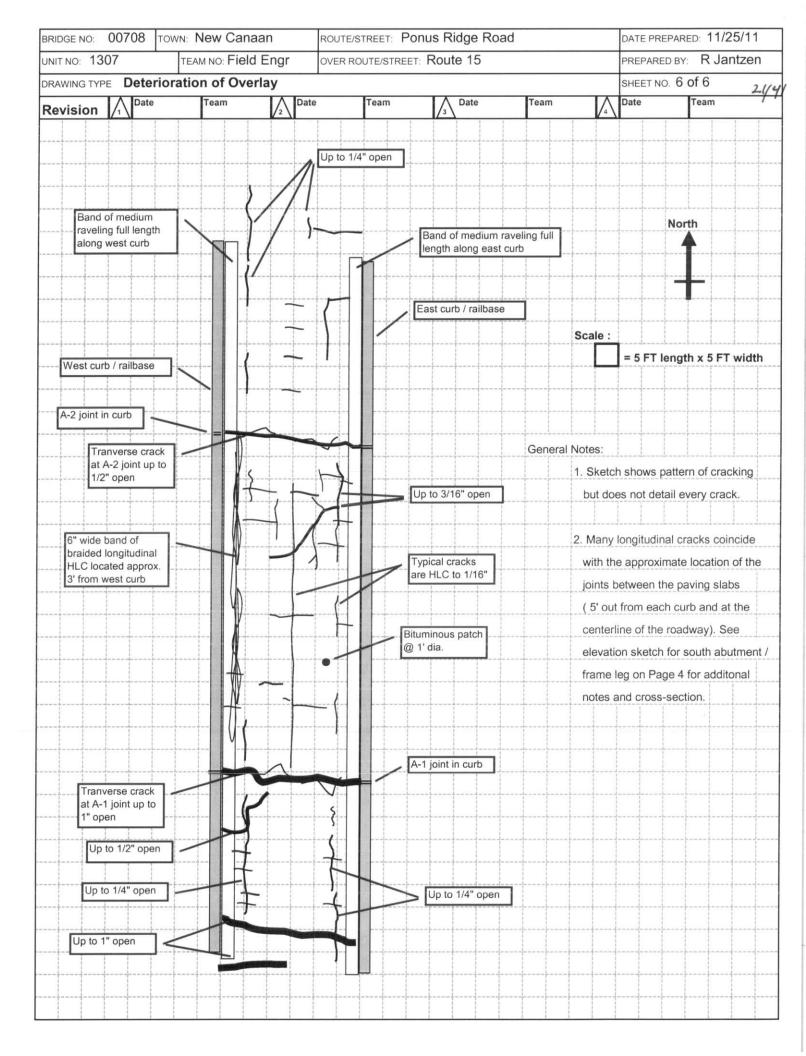


BRIDG	E NO:	00708 т	own: New Ca	naan	ROUTE/S	TREET: Pon	us Ridge Ro	ad		DATE PREPA	ARED: 11/2	5/11
JNIT N	10: 13	307	теам по: Fi	eld Engr	OVER RO	OUTE/STREET:	Route 15			PREPARED	BY: R Jar	ntzen
DRAW	ING TY	PE Intrado	os (slab soff	it) Deterior	ation Ca	lculations	3			SHEET NO.	2 of 6	17/4
Revi	sion	Date	Team	Dat Dat	е	Team)3 Date	Team	_4	Date	Team	
1		1/	out-out x ove	erall length = 3	5.5' x 74'	= 2627 SF						
			ab soffit) = wid				x 65' = 222	3 SF				
	1000											
Δ	reas	of Deteriora	tion :		Are	as of Discol	oration, Stain	s. and Later	nt (potenti	al future) m	apcracks:	
	arcus.	OI DOLOTIONA		1 1 1	1 1	2' x 4' =				8 SF		
9	analle	(100% area	1.1			4' x 4' =				16 SF		
		x 1/2' =	1/2 SF		11	10' x 1-1/2	=	1		15 SF		
		x 1' =	1 SF			10' x 7' =				70 SF		
		x 1' =	1 SF			10' x 16-1/				165 SF		1
		x 1' =	4 SF			16' x 1-1/2				24 sf		
	1	x 1' =	5 SF			16' x 1-1/2		+		24 SF		
		x 1' =	5 SF			16' x 3' =		1		48 SF		11
			1			16' x 16-1/				264 SF		
		' x 1-1/2' =	12 SF_		1	1	- (5' x 1')	- (4' × 1'	\ =	27 SF		
		' x 1' =		1 1 1		1) - (5' x 1')			163 SF	-11	
	10	tal SF spalls	= 45 SF			1	coloration, sta					
			lll	offic (100% or		Total SF dis	coloration, sta	ins, laterit me	арстаско	7027 01		1
iN			pness and / or o		ea) -	De	ercentage stain	s of overall d	leck area	= 824 SF /	2627 SF =	314%
			ource of efflo) =	64 SF			Percentage of in					
		x 8' =					ercentage of it	iliados area	- 024 31	7 2223 31	- 37.1 76	1
		x 9' =		72 SF				++				
		' x 16' =		176 SF	1							
		' x 15-1/2'		217 SF								
			- (1' x 1/2' sp									
	1		(11' x 1/2' sp					+				
	To	tal SF mapo	crack, efflo =	773-1/4	SF			+				
					11	1		+				
Т.	otal o	leterioration	(spalls and ma	apcracks) =	45 SF +	773.25 SF	= 818.25 SF					
					.11	1		.L				1
			eterioration of					1 %				
	(F	Percentage of	f intrados area	= 818.25 SF	2223 SF	= 36.8 %)					
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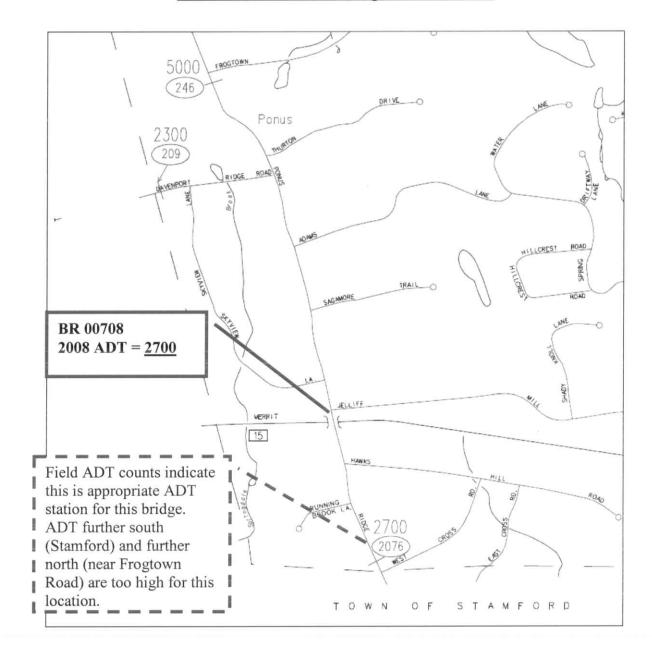








BR 00708, Ponus Ridge Rd o/ Route 15, New Canaan Estimated ADT for 2011 Using 2008 Hard Count





2008 ADT

COUNTED: MAR/APR

NEW CANAAN

CONNECTICUT

BR 00708, Ponus Ridge Rd o/ Route 15, New Canaan Estimated ADT for 2011 Using 2008 Hard Count

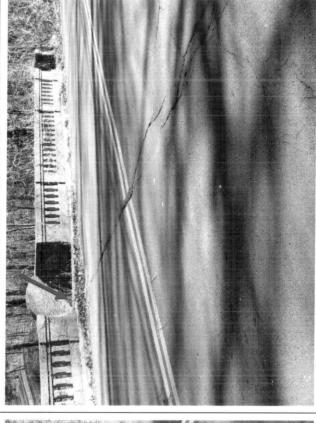
Calculations for 20111 Estimated ADT

Road classification is "Urban Minor Arterial", use growth rate of 1.1 per 10 years.

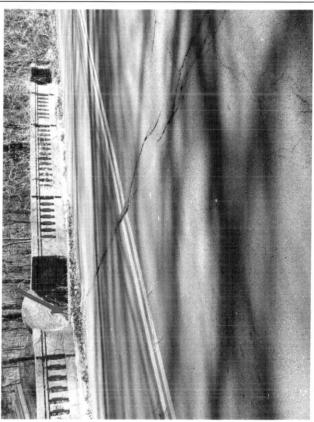
Hard count 2008 ADT = 2700

Estimated 2011 ADT = $2700 \times 1.03 = 2781$; therefore <u>use **2780** as estimated 2011 ADT</u>

Bridge No.	80200	Inspected by:	R Jantzen
Town:	New Canaan	Inspected by:	
Feature Carried:	Ponus Ridge Road	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Project No.:	Supplemental Inspection
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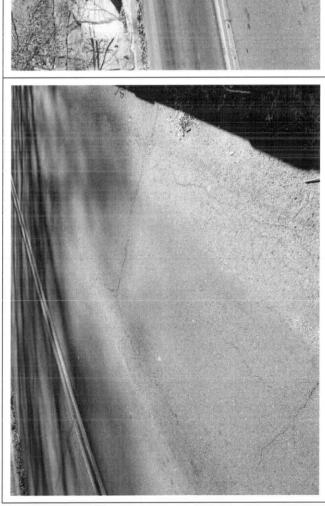


Description 1: Looking across bridge from south approach.

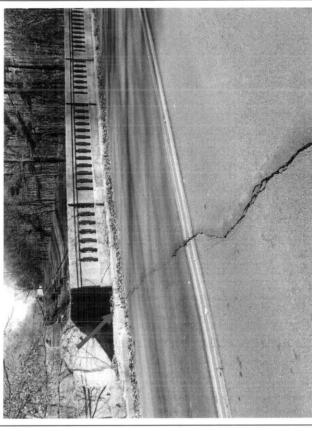


Description 2: Transverse crack in overlay at south deck / frame edge. Crack aligns with joint in curb / railbase.

	Appendix A		
Bridge No.	80200	Inspected by:	R Jantzen
Town:	New Canaan	Inspected by:	
Feature Carried:	Ponus Ridge Road	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Project No.:	Supplemental Inspection

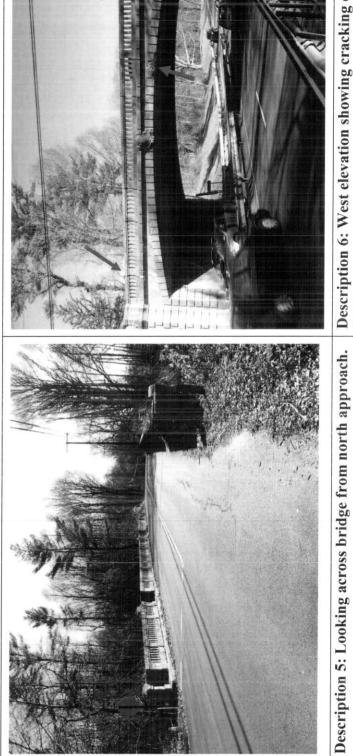


Description 3: Typical overlay condition on bridge showing large pattern mapcracking and random longitudinal and transverse cracks. Shoulder area shows braided longitudinal cracks and moderate raveling. SB lane shown.



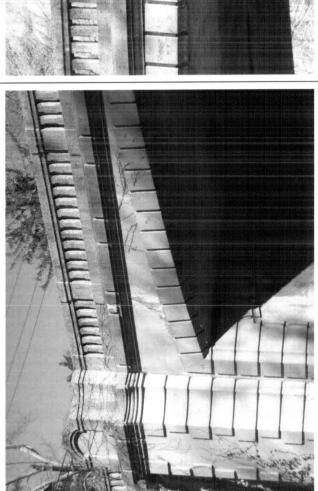
Description 4: Transverse crack in overlay at north deck / frame end. Crack aligns with joint in curb / railbase.

		ACMIT CANA		
Bridge No.	80200		Inspected by:	R Jantzen
Town:	New Canaan	DOT	Inspected by:	
Feature Carried:	Ponus Ridge Road		Date Inspected:	11-25-2011
Feature Crossed:	Route 15	5.50.00	Project No.:	Supplemental Inspection





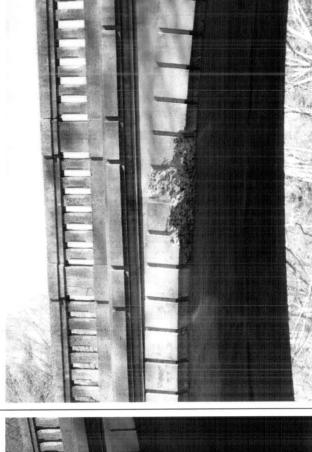
Bridge No.	00708	Inspected by:	R Jantzen
Town:	New Canaan	Inspected by:	
Feature Carried:	Ponus Ridge Road	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Project No.:	Supplemental Inspection



Description 8: Close up of severe scale on fascia (5.5 SF x 3" deep) near midspan.

Description 7: Close up of 1/16" open crack of fascia at NW

corner (negative moment area).



	Policy Comments of the Comment	Selfer S	
Bridge No.	80200	Inspected by:	R Jantzen
Town:	New Canaan	OT Inspected by:	
Feature Carried:	Ponus Ridge Road	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Project No.:	
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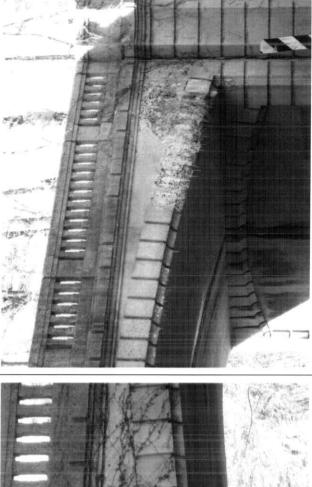


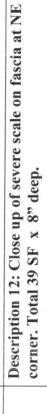


Description 10: East elevation showing large areas of severe scale on fascia at NE and SE corners.

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Bridge No.	80208	Inspected by:	R Jantzen
Town:	New Canaan	Inspected by:	
Feature Carried:	Ponus Ridge Road	Date Inspected: 11-25-2011	11-25-2011
Feature Crossed:	Route 15	Project No.:	Supplemental Insp
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Description 11: Close up of severe scale on fascia at SE corner. Total 19.5 SF x 4.5" deep.

		The state of the s		
Bridge No.	80200		Inspected by:	R Jantzen
Town:	New Canaan	DOT	Inspected by:	
Feature Carried:	Ponus Ridge Road	1 80	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Or TRIPES	Project No.:	Supplemental Inspection
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Description 14: Close up of severe scale on fascia at NE corner. Note active leakage and very heavy efflorescence at area of deepest scale.

Description 13: Close up of severe scale on fascia at NE

corner. Total 39 SF x 8" deep.

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R Jantzen		11-25-2011	Supplemental Inspection	
Inspected by:	Inspected by:	Date Inspected:	Project No.:	
	// DOT	14 lyr)		
00008	New Canaan	Ponus Ridge Road	Route 15	
Bridge No.	Town:	Feature Carried:	Feature Crossed:	

Description 16: Southeast corner of frame intrados showing area of scrapes and isolated spall. Also note staining and efflorescence on either side of longitudinal construction joint.

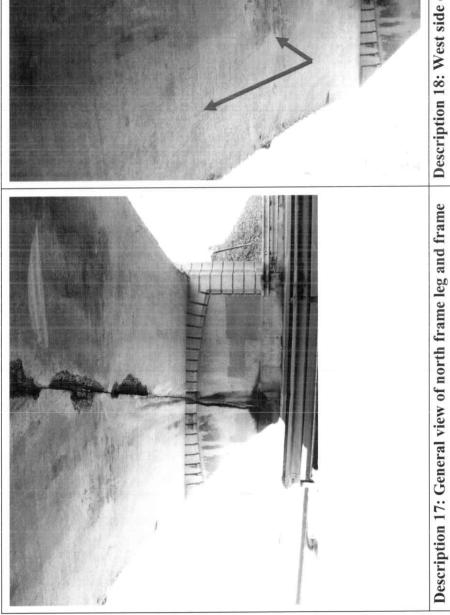
frame slab soffit with heavy spalling and exposed rebars

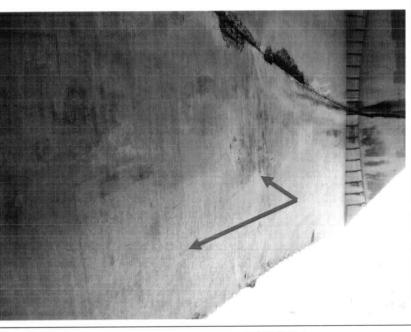
along longitudinal construction joint.

Description 15: South frame leg showing vertical crack (0.20" open) with heavy efflorescence and south end of

Page 8

Bridge No.	80200	Inspected by:	R Jantzen
Town:	New Canaan	Inspected by:	
Feature Carried:	Ponus Ridge Road	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Project No.:	Supplemental Inspection





Description 18: West side of intrados showing areas of maperacking with dampness. intrados (slab soffit). Note heavy spalling and exposed rebar

Page 9

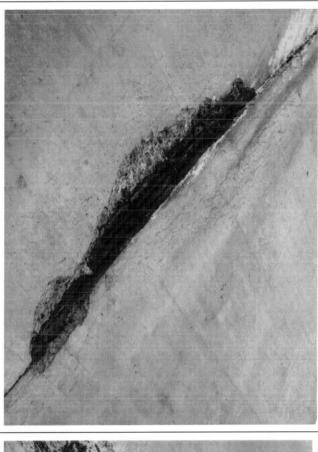
along longitudinal joint in intrados and large crack (1/8" open) with associated scale up to 7" wide at north leg.

Description 20: Close up of mapcracking in Photo 20 (near tip of arrow).

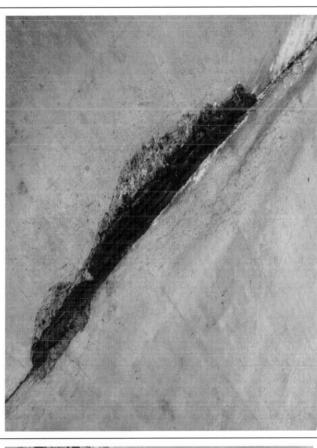
Description 19: East side of intrados showing areas of

maperacking with dampness.

		Marie 1/2 /		
Bridge No.	00708	Inspe	Inspected by:	R Jantzen
Town:	New Canaan	DOT Inspe	Inspected by:	
Feature Carried:	Ponus Ridge Road	Date	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Proje	Project No.:	Supplemental Inspection
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Description 21: View of spalls with exposed rebar along longitudinal joint over NB lanes. Note some rebar previously coated with protective sealer.

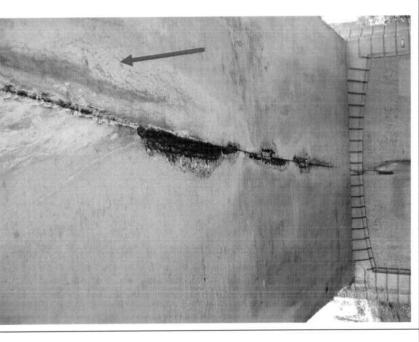


Description 22: View of spalls with exposed rebar along longitudinal joint over SB lanes.

	A Company of the Comp		
Bridge No.	80200	Inspected by:	R Jantzen
Town:	New Canaan	Inspected by:	
Feature Carried:	Ponus Ridge Road	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	Project No.:	Supplemental Inspection

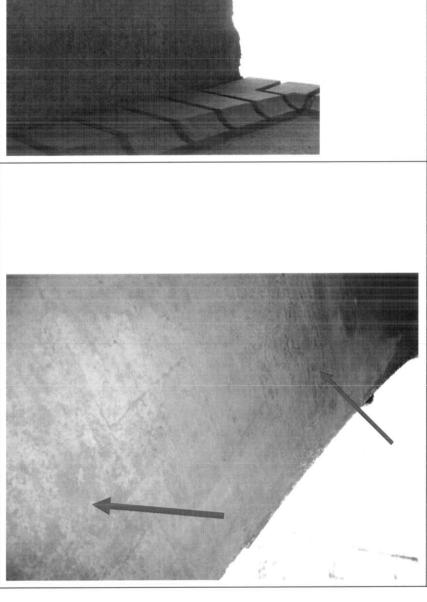


Description 23: View of intrados adjacent to north leg shows areas of discoloration, stains and latent mapcracks.

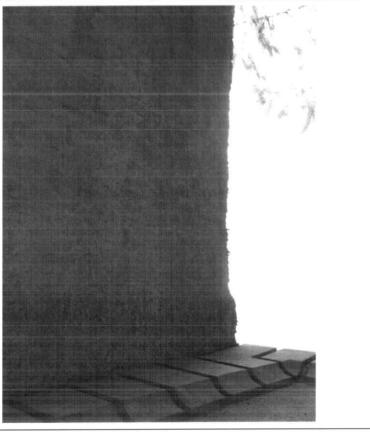


Description 24: View of longitudinal joint from north leg showing heavy efflorescence and adjacent area of braided longitudinal cracks with dampness. Also note extensive spalling and exposed rebar.

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Bridge No.	80200	Juspe	Inspected by:	R Jantzen	
Town:	New Canaan	or Inspection	nspected by:		
Feature Carried:	Ponus Ridge Road	Date	Date Inspected:	11-25-2011	_
Feature Crossed:	Route 15	Proje	roject No.:	Supplemental Inspection	
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Description 25: NE corner of intrados showing area of discoloration stains and latent maperacks near north leg and area of maperacking with dampness near midspan.



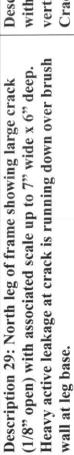
Description 26: NE corner of intrados showing area of discoloration stains and latent maperacks near north leg.

discoloration stains and latent maperacks near north leg.

and area of maperacking with dampness over SB lanes.

		With the William A.		
Bridge No.	80200	8	Inspected by:	R Jantzen
Town:	New Canaan	DOT	Inspected by:	
Feature Carried:	Ponus Ridge Road	11 500 A	Date Inspected:	11-25-2011
Feature Crossed:	Route 15	OF TENES	Project No.:	Supplemental Inspection







Description 30: North leg showing large crack (1/8" open) with associated scale up to 7" wide x 6" deep. Exposed vertical rebar shows severe rust with 38% section loss. Crack shows heavy active leakage and efflorescence.

Supplemental Inspection

12-23-2011

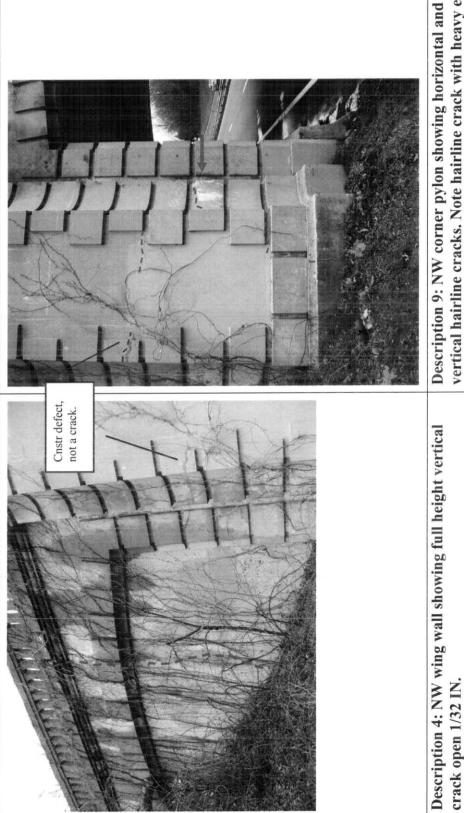
R Jantzen

Inspected by:

80200

Bridge No.

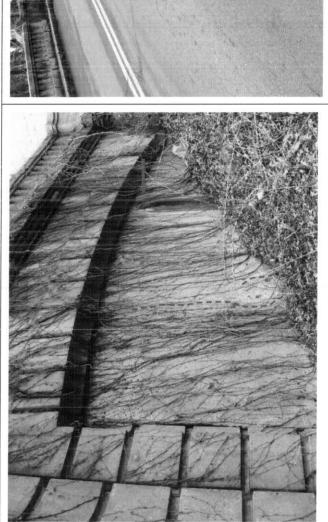
Town: New Canaan		mapeeted by.	K Jantzen
	LOQ	Inspected by:	
Feature Carried: Ponus Ridge Road	1100	Date Inspected:	12-23-2011
Feature Crossed: Route 15	1000	Project No.:	Supplemental Inspection



rtical Description 9: NW corner pylon showing horizontal and vertical hairline cracks. Note hairline crack with heavy efflo and adjacent spall at right side of photo. Also note construction defect (not a crack) at left side of photo.

Page 2

		STREET FILE		
Bridge No.	80200		Inspected by:	R Jantzen
Town:	New Canaan	F/ DOT 12	Inspected by:	
Feature Carried:	Ponus Ridge Road	1.50	Date Inspected:	12-23-2011
Feature Crossed:	Route 15	10 NB	Project No.:	Supplemental Inspection



Description 10: NE wing wall showing vertical hairline cracks and large spall with efflorescence and active leakage.



Description 21: Heavy cracking of overlay at NE quadrant of bridge span. Cracks up to 3/16 IN open.